4. The apparatus of claim 1 in which the length of the roller bearings is less than the radial extent of the radial bearing surface on the cutter.

5. In a sealed rotary drilling bit of the class having a plurality of journals, each carrying a rotatable cutter, the combination comprising;

journal means including a radially outwardly opening seal receiving groove having axially displaced inner and outer ends and disposed in proximity to the outer end thereof;

cutter means having a recess complementary in shape to said journal means and rotatably disposed thereon, said cutter means having a radially inwardly facing seal surface at its outer end and complementary disposed and facing said seal receiving groove;

seal means disposed in said seal receiving groove, said seal means exhibiting resilient characteristics and being dimensioned with respect to said seal receiving groove so as to be non-rotatably retained in said groove when the interior of said cutter means is filled with lubricant fluid under pressure and to slideably, sealably engage the seal surface in the recess in said cutters means; and a pressure relief duct extending between the inner and outer ends of said seal receiving groove.

6. The apparatus of claim 5 in which the journal means include the further seal receiving groove axially adjacent the outer end of the seal receiving groove and a hard seal means disposed on the inwardly facing seal surface of the cutter means, for rotation therewith, and extends into said further seal receiving groove.

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